TOTAL PETROLEUM HYDROCARBONS

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URS CONSULTANTS, INC.

JUN 17 1993

RECEIVED

URS TDMT Only TDCN: 0290
Project #: 62251 Loc: 09.63 Type: 63

ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO: Kevin Mayer
Environmental Engineer
South Coast Ground Water Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Carolyn Studeny
Senior Organic Data Reviewer
Environmental Services Assistance Team (ESAT)

JUN 1993 RECEIVED TDMT

DATE: June 16, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE:	Newmark/Muscoy
EPA SSI NO.:	J5
CERCLIS ID NO.:	CAD981434517
CASE/SAS NO.:	LV3S39 Memo #05
SDG NO.:	SY5568
LABORATORY:	Region IX, Las Vegas
ANALYSIS:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by the LUFT Method October 1989
SAMPLE NO.:	10 Water Samples (see Case Summary)
COLLECTION DATE:	April 16, 20, 21 and 22, 1993
REVIEWER:	Mary Hart ESAT/ICF Technology, Inc.

If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)
Steve Remaley, TPO USEPA Region IX
Larry Zinky - URS

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

Data Validation Report

Case No.: LV3S39 Memo #05
Site: Newmark/Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 16, 1993

I. Case Summary

SAMPLE INFORMATION:

Sample Numbers:	SY5568 and SY5652 through SY5660
Concentration and Matrix:	Low Level Water
Analysis:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by LUFT Method October 1989
SOW:	N/A
Collection Date:	April 16, 20, 21 and 22, 1993
Sample Receipt Date:	April 20, 21, 22 and 23, 1993
Extraction Date:	April 23 and 26, 1993
Analysis Date:	April 23 and 24 and May 3, 4 and 5, 1993

FIELD QC:

Trip Blanks (TB):	None
Field Blanks (FB):	None
Equipment Blanks (EB):	None
Background Samples (BG):	None
Field Duplicates (D1):	SY5653 and SY5654

METHOD BLANKS AND ASSOCIATED SAMPLES:

GAS WBLK AA11176RB:	SY5568, SY5652 through SY5656, SY5659 and SY5660
GAS WBLK AA11211RB:	SY5657, SY5658, SY5658MS and SY5658MSD
DIESEL WBLK AA11176RB:	SY5568, SY5652 through SY5656, SY5659 and SY5660
DIESEL WBLK AA11211RB:	SY5657, SY5658, SY5658MS and SY5658MSD

TABLES:

1A:	Analytical Results with Qualifications
1B:	Data Qualifiers
2:	Sample Quantitation Limits of Target Compound List (TCL) Analytes

TPO ATTENTION:

Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request.

ADDITIONAL COMMENTS:

This report was prepared according to the SAS requirements and the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

METHOD NON-COMPLIANCE: See TPO ATTENTION

II. Validation Summary

	TPH GASOLINE Acceptable	/Comment	TPH DIESEL Acceptable	/Comment
HOLDING TIMES	[Y]	[ ]	[Y]	[ ]
GC/MS TUNE/GC PERFORMANCE	[Y]	[ ]	[Y]	[ ]
CALIBRATIONS	[Y]	[ ]	[Y]	[A]
FIELD QC	[Y]	[ ]	[Y]	[ ]
LABORATORY BLANKS	[Y]	[ ]	[Y]	[ ]
SURROGATES	[N/A]	[ ]	[N/A]	[ ]
MATRIX SPIKE/DUPLICATES	[Y]	[ ]	[Y]	[ ]
INTERNAL STANDARDS	[N/A]	[ ]	[N/A]	[ ]
COMPOUND IDENTIFICATION	[Y]	[ ]	[Y]	[ ]
COMPOUND QUANTITATION	[Y]	[ ]	[Y]	[ ]
SYSTEM PERFORMANCE	[Y]	[ ]	[Y]	[ ]

N/A = Not Applicable

III. Validity and Comments

A. Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request. However, the laboratory did analyze a low level 50 mg/L standard to demonstrate sensitivity and linearity down to a concentration of 0.25 mg/L. It is the opinion of the reviewer that quantitation limit of 0.5 mg/L was achieved by the laboratory.

ANALYTICAL RESULTS
TABLE 1A

Case No.: LV3S39 Memo #05
Site: Muscoy/Newmark
Lab.: Region IX, Las Vegas
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 16, 1993

Analysis Type: Low Level Water Samples for SAS TPH as Diesel and Gasoline by the LUFT Method October 1989

Concentration in mg/L

Station Location	MUNI-105-01			MUNI-101-01			MUNI-104-01			MUNI-104-02			MUNI-108-01			MUNI-112-01			MUNI-110-01		
Sample I.D.	SY5568			SY5652			SY5653 D1			SY5654 D1			SY5655			SY5656			SY5657		
Date of Collection	4/16/93			4/20/93			4/20/93			4/20/93			4/20/93			4/20/93			4/21/93		
Compound - TPH	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TPH as Diesel	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
TPH as Gasoline	5 U			5 U			5 U			5 U			5 U			5 U			5 U		
Station Location	MUNI-111-01			MUNI-106-01			MUNI-102-01			Method Blank			Method Blank			Method Blank			Method Blank		
Sample I.D.	SY5658			SY5659			SY5660			WBLK A11176RB			WBLK A11211RB			WBLK A11176RB			WBLK A11211RB		
Date of Collection	4/21/93			4/22/93			4/22/93														
Compound - TPH	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TPH as Diesel	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U			NA			NA		
TPH as Gasoline	5 U			5 U			5 U			NA			NA			5 U			5 U		
Station Location																					
Sample I.D.	QL																				
Date of Collection																					
Compound - TPH	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TPH as Diesel	0.5																				
TPH as Gasoline	5																				

Val-Validity Refer to Data Qualifiers in Table 1B
Com-Comments Refer to the Corresponding Section in the Narrative for each letter
QL-Quantitation Limits
NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank
BG-Background Sample

TABLE 1B
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 2
Sample Quantitation Limits

Case No.: LV3S39 Memo #05
Site: Newmark/Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Mary Hart
ESAT/ICF Technology, Inc.
Date: June 16, 1993

TPH	Units, mg/L	Q	C
Gasoline	5.0		
Diesel	0.5		A

Q-Qualifier
C-Comment

To calculate the sample quantitation limits, multiply QL by the following factors:

Sample No.	TPH as Diesel and Gasoline
All samples	1.0
Method blanks	1.0

TPO: [ ]FYI [X]Attention [ ]Action Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #05 LABORATORY Region IX, Las Vegas

SDG NO. SY5568 SITE NAME Newmark/Muscoy

SOW LUFT MANUAL OCTOBER 1989 REVIEW COMPLETION DATE June 16, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Mary Hart

NO. OF SAMPLES 10 WATER _____ SOIL _____ OTHER

	TPH GAS	BNA	PEST	TPH DIESEL
1. HOLDING TIMES	O			O
2. GC-MS TUNE/GC PERFORMANCE	O			O
3. INITIAL CALIBRATIONS	O			O
4. CONTINUING CALIBRATIONS	O			O
5. FIELD QC	O			O
6. LABORATORY BLANKS	O			O
7. SURROGATES	F			F
8. MATRIX SPIKE/DUPLICATES	O			O
9. REGIONAL QC	F			F
10. INTERNAL STANDARDS	F			F
11. COMPOUND IDENTIFICATION	O			O
12. COMPOUND QUANTITATION	O			O
13. SYSTEM PERFORMANCE	O			O
14. OVERALL ASSESSMENT	O			O

O = No problems or minor problems that affect data quality.
X = No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M = More than about 5% of the data points are qualified as estimates.
Z = More than about 5% of the data points have been rejected.
F = Not Applicable

TPO ATTENTION ITEMS: Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request.

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ICF TECHNOLOGY INCORPORATED

URS TDMT Only TDCN: 0316
Project #: 62251 Loc: 09.63 Type: 63

MEMORANDUM

TO: Kevin Mayer
Environmental Engineer
South Coast Ground Water Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Carolyn Studeny
Senior Organic Data Reviewer
Environmental Services Assistance Team (ESAT)

DATE: July 7, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE:	Newmark-Muscoy
EPA SSI NO.:	J5
CERCLIS ID NO.:	CAD981434517
CASE/SAS NO.:	LV3S39 Memo #09
SDG NO.:	SY5674
LABORATORY:	Region IX, Las Vegas
ANALYSIS:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by the LUFT Method October 1989
SAMPLE NO.:	SY5674 and SY5681 through SY5683
COLLECTION DATE:	May 4, 5 and 6, 1993
REVIEWER:	Anjana Vig ESAT/ICF Technology, Inc.

If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)
Steve Remaley, TPO USEPA Region IX
Larry Zinky - URS

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

Data Validation Report

Case No.: LV3S39 Memo #09
Site: Newmark-Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Anjana Vig, ESAT/ICF Technology, Inc.
Date: July 7, 1993

I. Case Summary

SAMPLE INFORMATION:

Sample Numbers:	SY5674 and SY5681 through SY5683
Concentration and Matrix:	Low Level Water
Analysis:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by LUFT Method October 1989
SOW:	N/A
Collection Date:	May 4, 5 and 6, 1993
Sample Receipt Date:	May 5, 6, 7 and 8, 1993
Extraction Date:	May 13, 1993
Analysis Date:	May 13 and 15, 1993

FIELD QC:

Trip Blanks (TB):	None
Field Blanks (FB):	None
Equipment Blanks (EB):	SY5683
Background Samples (BG):	None
Field Duplicates (D1):	None

METHOD BLANKS AND ASSOCIATED SAMPLES:

GAS WBLK AA11416RB:	SY5674, SY5681 through SY5683, SY5682MS and SY5682MSD
DIESEL WBLK AA11416RB:	SY5674, SY5681 through SY5683, SY5682MS and SY5682MSD

TABLES:

1A:	Analytical Results with Qualifications
1B:	Data Qualifiers
2:	Sample Quantitation Limits of Target Compound List (TCL) Analytes

METHOD NON-COMPLIANCE

TPO ATTENTION:

Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request.

ADDITIONAL COMMENTS:

This report was prepared according to the SAS requirements and the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

MS - Matrix Spike; MSD - Matrix Spike Duplicate

II. Validation Summary

	TPH GASOLINE Acceptable	/Comment	TPH DIESEL Acceptable	/Comment
HOLDING TIMES	[Y]	[ ]	[Y]	[ ]
GC/MS TUNE/GC PERFORMANCE	[Y]	[ ]	[Y]	[ ]
CALIBRATIONS	[Y]	[ ]	[Y]	[A]
FIELD QC	[Y]	[ ]	[Y]	[ ]
LABORATORY BLANKS	[Y]	[ ]	[Y]	[ ]
SURROGATES	[N/A]	[ ]	[N/A]	[ ]
MATRIX SPIKE/DUPLICATES	[Y]	[ ]	[Y]	[ ]
INTERNAL STANDARDS	[N/A]	[ ]	[N/A]	[ ]
COMPOUND IDENTIFICATION	[Y]	[ ]	[Y]	[ ]
COMPOUND QUANTITATION	[Y]	[ ]	[Y]	[ ]
SYSTEM PERFORMANCE	[Y]	[ ]	[Y]	[ ]

N/A = Not Applicable

III. Validity and Comments

A. Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request. However, the laboratory did analyze a low level 50 mg/L standard to demonstrate sensitivity and linearity down to a concentration of 0.25 mg/L. It is the opinion of the reviewer that quantitation limit of 0.5 mg/L was achieved by the laboratory.

ANALYTICAL RESULTS
TABLE 1A

Case No.: LV3S39 Memo #09
Site: Newmark-Muscoy
Lab.: Region IX, Las Vegas
Reviewer: Anjana Vig, ESAT/ICF Technology, Inc.
Date: July 7, 1993

Analysis Type: Low Level Water Samples for SAS TPH as Gasoline and Diesel by the LUFT Method

Concentration in mg/L

Station Location	MUNI-103-01			MUNI-107-01			MUNI-109-01			WEQ109-01			METHOD BLANK			METHOD BLANK			QL		
Sample I.D.	SY5674			SY5681			SY5682			SY5683 EB			WBLK AA11416RB			WBLK AA11416RB					
Date of Collection	5/04/93			5/05/93			5/06/93			5/06/93											
Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TPH as Diesel	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U			NA			0.5		
TPH as Gasoline	5 U			5 U			5 U			5 U			NA			5 U			5		

Val-Validity Refer to Data Qualifiers in Table 1B
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
QL-Quantitation Limits
NA-Not Anal

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank
BG-Background Sample
ND-Not Detected

TABLE 1B
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 2
Sample Quantitation Limits

Case No.: LV3S39 Memo #09
Site: Newmark-Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Anjana Vig
ESAT/ICF Technology, Inc.
Date: July 7, 1993

TPH	Units, mg/L	Q	C
Gasoline	5.0		
Diesel	0.5		A

Q-Qualifier
C-Comment

To calculate the sample quantitation limits, multiply QL by the following factors:

Sample No.	TPH as Diesel and Gasoline
All samples	1.0
Method blanks	1.0

TPO: [ ]FYI [X]Attention [ ]Action Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #09 LABORATORY Region IX, Las Vegas

SDG NO. SY5568 SITE NAME Newmark/Muscoy

SOW LUFT MANUAL OCTOBER 1989 REVIEW COMPLETION DATE July 7, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Anjana Vig

NO. OF SAMPLES 4 WATER _____ SOIL _____ OTHER

	TPH GAS	BNA	PEST	TPH DIESEL
1. HOLDING TIMES	0			0
2. GC-MS TUNE/GC PERFORMANCE	0			0
3. INITIAL CALIBRATIONS	0			0
4. CONTINUING CALIBRATIONS	0			0
5. FIELD QC	0			0
6. LABORATORY BLANKS	0			0
7. SURROGATES	F			F
8. MATRIX SPIKE/DUPLICATES	0			0
9. REGIONAL QC	F			F
10. INTERNAL STANDARDS	F			F
11. COMPOUND IDENTIFICATION	0			0
12. COMPOUND QUANTITATION	0			0
13. SYSTEM PERFORMANCE	0			0
14. OVERALL ASSESSMENT	0			0

0 - No problems or minor problems that affect data quality.
X - No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M - More than about 5% of the data points are qualified as estimates.
Z - More than about 5% of the data points have been rejected.
F - Not Applicable

TPO ATTENTION ITEMS: Although a low response was obtained for diesel in the Initial Calibration, the laboratory did not perform a method detection limit (MDL) study for diesel as specified in the SAS request.

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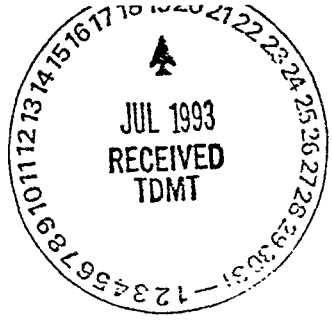
ICF TECHNOLOGY INCORPORATED

URS TDMT Only TDCN: 0320
Project #: 62251 Loc: 09.63 Type: 63



MEMORANDUM

TO: Kevin Mayer
Environmental Engineer
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Margie D. Weiner
Senior Data Review Oversight Chemist
Environmental Services Assistance Team (ESAT)

DATE: July 15, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region IX review of the following analytical data:

SITE:	Newmark-Muscoy
EPA SSI NO.:	J5
CERCLIS ID NO.:	CAD981434517
CASE/SAS NO.:	LV3S39 Memo #14
SDG NO.:	SY5684
LABORATORY:	Region IX, Las Vegas
ANALYSIS:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by the LUFT Method, 1989
SAMPLE NO.:	4 Water Samples (see Case Summary)
COLLECTION DATE:	May 24 and 25, 1993
REVIEWER:	Rameen Moezzi ESAT/ICF Technology, Inc.

If there are any questions, please contact Margie D. Weiner at (415) 882-3061.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)
Larry Zinky, URS - SAC

TPO: [X]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

Data Validation Report

Case No.: LV3S39 Memo #14
Site: Newmark-Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Rameen Moezzi, ESAT/ICF Technology, Inc.
Date: July 15, 1993

I. Case Summary

SAMPLE INFORMATION:

Sample Numbers:	SY5684 through SY5687
Concentration and Matrix:	Low Level Water
Analysis:	SAS Total Petroleum Hydrocarbons (TPH) as Gasoline and Diesel by the LUFT Method, 1989
SOW:	N/A
Collection Date:	May 24 and 25, 1993
Sample Receipt Date:	May 25 and 26, 1993
Diesel Extraction Date:	June 3, 1993
Gasoline Analysis Date:	June 1, 1993
Diesel Analysis Date:	June 9, 1993

FIELD QC:

Trip Blanks (TB):	None
Field Blanks (FB):	None
Equipment Blanks (EB):	None
Background Samples (BG):	None
Field Duplicates (D1):	SY5685 and SY5686

METHOD BLANKS AND ASSOCIATED SAMPLES:

WBLK 6/01/93 (Gasoline):	SY5684, SY5685, SY5686, SY5687, SY5687MS and SY5687MSD
WBLK 6/09/93 (Diesel):	SY5684, SY5685, SY5686, SY5687, SY5687MS and SY5687MSD

TABLES:

1A:	Analytical Results with Qualifications
1B:	Data Qualifiers
2:	Sample Quantitation Limits of Target Compound List (TCL) Analytes

ADDITIONAL COMMENTS:

The gasoline analysis was performed by the headspace method. Although the SAS request specifies the use of surrogates for both the gasoline and the diesel analyses, the laboratory encountered analytical problems regarding the surrogates, and was instructed by the Sample Management Office (SMO) that it was not necessary to report the surrogate recoveries. This report was prepared according to the SAS request, the LUFT Method, 1989, and the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

MS - Matrix Spike; MSD - Matrix Spike Duplicate

II. Validation Summary

	TPH Acceptable/Comment	
HOLDING TIMES	[Y]	[ ]
GC/MS TUNE/GC PERFORMANCE	[Y]	[ ]
CALIBRATIONS	[Y]	[ ]
FIELD QC	[Y]	[ ]
LABORATORY BLANKS	[Y]	[ ]
SURROGATES	[N/A]	[ ]
MATRIX SPIKE/DUPLICATES	[Y]	[ ]
INTERNAL STANDARDS	[N/A]	[ ]
COMPOUND IDENTIFICATION	[Y]	[ ]
COMPOUND QUANTITATION	[Y]	[ ]
SYSTEM PERFORMANCE	[Y]	[ ]

N/A = Not Applicable

III. Overall Assessment of Data

All of the QC requirements specified in the SAS contract have been met (see Additional Comments). The results for total petroleum hydrocarbons as gasoline and diesel in all of the samples were reported correctly.

ANALYTICAL RESULTS
TABLE 1A

Case No.: LV3S39 Memo #14
Site: Newmark-Muscoy
Lab.: Region IX, Las Vegas
Reviewer: Rameen Moezzi, ESAT/ICF Technology, Inc.
Date: July 15, 1993

Analysis Type: Low Level Groundwater Samples for SAS TPH as Gasoline and Diesel by the LUFT Method, 1989

Concentration in mg/L

Station Location	WMW-113-01			WMW-114-01			WMW-114-02			WMW-115-01			METHOD BLANK			METHOD BLANK			QL		
Sample I.D.	SY5684			SY5685 D1			SY5686 D1			SY5687			WBLK 6/01/93			WBLK 6/09/93					
Date of Collection	5/24/93			5/25/93			5/25/29			5/24/93											
Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TPH as Gasoline	5 U			5 U			5 U			5 U			5 U			NA			5		
TPH as Diesel	0.5 U			0.5 U			0.5 U			0.5 U			NA			0.5 U			0.5		

Val-Validity Refer to Data Qualifiers in Table 1B
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
QL-Quantitation Limits
NA-Not Ana

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank
BG-Background Sample
ND-Not Detected

TABLE 1B
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 2
Sample Quantitation Limits

Case No.: LV3S39 Memo #14
Site: Newmark-Muscoy
Laboratory: Region IX, Las Vegas
Reviewer: Rameen Moezzi
ESAT/ICF Technology, Inc.
Date: July 15, 1993

TPH	Units, mg/L	Q	C
Gasoline	5		
Diesel	0.5		

Q - Qualifier
C - Comment

To calculate the sample quantitation limits, multiply QL by the following factors:

Sample No.	TPH as Gasoline and Diesel
All samples	1.00
Method blanks	1.00

TPO: [X]FYI [ ]Attention [ ]Action Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #14 LABORATORY Region IX, Las Vegas

SDG NO. SY5684 SITE NAME Newmark-Muscoy

SOW LUFT Method, 1989 REVIEW COMPLETION DATE July 15, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Rameen Moezzi

NO. OF SAMPLES 4 WATER _____ SOIL _____ OTHER

	VOA	BNA	PEST	TPH
1. HOLDING TIMES				0
2. GC-MS TUNE/GC PERFORMANCE				0
3. INITIAL CALIBRATIONS				0
4. CONTINUING CALIBRATIONS				0
5. FIELD QC				0
6. LABORATORY BLANKS				0
7. SURROGATES				N/A
8. MATRIX SPIKE/DUPLICATES				0
9. REGIONAL QC				N/A
10. INTERNAL STANDARDS				N/A
11. COMPOUND IDENTIFICATION				0
12. COMPOUND QUANTITATION				0
13. SYSTEM PERFORMANCE				0
14. OVERALL ASSESSMENT				0

O = No problems or minor problems that affect data quality.
X = No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M = More than about 5% of the data points are qualified as estimates.
Z = More than about 5% of the data points have been rejected.
N/A = Not Applicable

TPO ACTION ITEMS:

AREAS OF CONCERN:

TOTAL METALS

160 Spear Street, Suite 1380
San Francisco, CA
94105-1535
415/882-3000
Fax 415/882-3199

URS TDMT Only TDCN: 0324
Project #: 62251 Loc: 09.64 Type: 64

ICF TECHNOLOGY INCORPORATED

JUL 2 · 1993
RECEIVED

MEMORANDUM

TO: Colette Kostelec
Environmental Engineer
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Margie D. Weiner MDW
Senior Data Review Oversight Chemist
Environmental Services Assistance Team (ESAT)

DATE: May 20, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region IX review of the following analytical data:

SITE:	Newmark-Muscoy
EPA SITE ID NO.:	J5
CASE/SAS NO.:	19785 Memo #01
SDG NO.:	MYL266
LABORATORY:	Associated Laboratories, Inc. (ALI)
ANALYSIS:	RAS Total Metals
SAMPLE NO.:	1 Water Sample (MYL266)
COLLECTION DATE:	April 20, 1993
REVIEWER:	Chris Davis, ESAT/ICF

If there are any questions, please contact Margie D. Weiner (ESAT/ICF) at (415) 882-3061.

Attachment

cc: Steve Remaley, TPO USEPA Region IX

TPO: [X]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

JUL 1993 RECEIVED TDMT

Data Validation Report

Case No.: 19785 Memo #01
Site: Newmark-Muscoy
Laboratory: Associated Laboratories, Inc. (ALI)
Reviewer: Chris Davis, ESAT/ICF
Date: May 20, 1993

I. Case Summary

SAMPLE INFORMATION: SAMPLE #: MYL266

COLLECTION DATE: April 20, 1993
SAMPLE RECEIPT DATE: April 21, 1993

CONCENTRATION & MATRIX: Low Concentration Groundwater Sample

FIELD QC: Field Blanks (FB): MYL266 (Water Blank)
Equipment Blanks (EB): None
Background Samples (BG): None
Duplicates (D1): None

LABORATORY QC: Matrix Spike: MYL266
Duplicates: MYL266
ICP Serial Dilution: MYL266

ANALYSIS: RAS Total Metals

Analyte	Sample Preparation and Digestion Date	Analysis Date
ICP Metals	April 22, 1993	April 27, 1993
GFAA: Arsenic	April 22, 1993	April 26, 1993
Lead	April 22, 1993	April 28, 1993
Selenium	April 22, 1993	April 23 and 24, 1993
Thallium	April 22, 1993	April 27, 1993
Mercury	April 23, 1993	April 23, 1993

ADDITIONAL COMMENTS:

The analytical results with qualifications are listed in Table 1A. The definitions of the data qualifiers used in Table 1A are listed in Table 1B. This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work (ILM02.1), and the EPA Draft Document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

II. Validation Summary

The data were evaluated based on the following parameters:

Parameter	Acceptable	Comment
1. Data Completeness	Yes	
2. Sample Holding Times	Yes	
3. Calibration	Yes	
a. Initial Calibration Verification		
b. Continuing Calibration Verification		
c. Calibration Blank		
4. Blanks	Yes	
a. Laboratory Preparation Blank		
b. Field Blank		
c. Equipment Blank		
5. ICP Interference Check Sample Analysis	Yes	
6. Laboratory Control Sample Analysis	Yes	
7. Spiked Sample Analysis	No	B
8. Laboratory Duplicate Sample Analysis	No	C
9. Field Duplicate Sample Analysis	N/A	
10. GFAA QC Analysis	Yes	
a. Duplicate Injections		
b. Analytical Spikes		
c. Method of Standard Addition		
11. ICP Serial Dilution Analysis	Yes	
12. Sample Quantitation	Yes	A
13. Sample Result Verification	Yes	

N/A = Not Applicable

III. Validity and Comments

A. The following results are estimated and are flagged "J" in Table 1A.

- All results above the instrument detection limit but below the contract required detection limit (denoted with an "L" qualifier)

Results above the instrument detection limit (IDL) but below the contract required detection limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

B. The following results are estimated because of matrix spike recovery results outside method QC limits. The results are flagged "J" in Table 1A.

- Lead and silver in sample MYL266

The matrix spike sample analysis provides information about the effect of the sample matrix on the digestion and measurement methodology. The matrix spike recovery results for lead and silver in QC sample number MYL266 did not meet the 75-125% criteria for accuracy. The percent recovery and percent bias for each analyte is presented below and is based on an ideal recovery of 100%.

Analyte	MYL266 % Recovery	MYL266 % Bias
Lead	70.5	-29.5
Silver	12.4	-87.6

The results reported for lead and silver in sample MYL266 were less than the IDL and false negatives may exist.

B. The following result is estimated because of laboratory duplicate results outside method QC limits. The result is flagged "J" in Table 1A.

- Iron in sample MYL266

Duplicate analyses demonstrate the analytical precision obtained for each sample matrix. Laboratory duplicate results did not meet the ±20 relative percent difference (RPD) and ±CRDL criteria for precision as listed below.

Analyte	MYL266 Lab. Dup. RPD
Iron	147.2

The results reported for iron in sample number MYL266 is considered quantitatively uncertain. The imprecision between duplicate results may be due to high levels of solids in the sample, poor laboratory technique, or method defects.

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #01
Site: Muscoy (Newmark)
Lab.: Associated Laboratories, Inc. (ALI)
Reviewer: Chris Davis, ESAT/ICF Technology, Inc.
Date: May 20, 1993

Analysis Type: Low Concentration Water Sample for RAS Total Metals

Concentration in ug/L

Station Location	WA01-01			Lab Blank			IDL			CRDL											
Sample I.D.	MYL266																				
Date of Collection	04/20/93																				
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	33.5 U			33.5 U			33.5			200											
Antimony	28.7 U			28.7 U			28.7			60.0											
Arsenic	1.1 L	J	A	1.1 U			1.1			10.0											
Barium	5.1 U			5.1 U			5.1			200											
Beryllium	1.8 U			1.8 U			1.8			5.0											
Cadmium	2.0 U			2.0 U			2.0			5.0											
Calcium	152 L	J	A	98.8 L	J	A	21.2			5000											
Chromium	5 0 U			7.4 L	J	A	5.0			10.0											
Cobalt	10.4 U			10.4 U			10.4			50.0											
Copper	2.6 L	J	A	1.7 U			1.7			25.0											
Iron	374	J	C	86.6 L	J	A	5.4			100											
Lead	1 0 U	J	B	1.0 U			1.0			3 0											
Magnesium	54.0 L	J	A	170 L	J	A	24.8			5000											
Manganese	3.6 U			3.6 U			3.6			15.0											
Mercury	0.20 U			0.20 U			0.20			0 20											
Nickel	15.3 U			15.3 U			15.3			40 0											
Potassium	267 U			267 U			267			5000											
Selenium	1.6 U			1 6 U			1 6			5.0											
Silver	1.6 U	J	B	1.6 U			1.6			10.0											
Sodium	593 L	J	A	1520 L	J	A	18.0			5000											
Thallium	2 0 U			2.0 U			2 0			10.0											
Vanadium	4.7 U			16.2 L	J	A	4 7			50 0											
Zinc	5 4 L	J	A	3.8 L	J	A	2 6			20.0											

Val-Validity Refer to Data Qualifiers in Table 1B
Com -Comments Refer to the Corresponding Section in the Narrative for each letter
IDL -Instrument Detection Limit for Waters MDL -Method Detection Limit for Soils

D1, D2, etc -Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL -Contract Required Detection Limit

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the EPA draft document, "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for but was not detected above the level of the reported value. The reported value is the Instrument Detection Limit (IDL) for waters and the Method Detection Limit (MDL) for soils for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).

L The analyte was analyzed for but results fell between the IDL for waters or the MDL for soils and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.

R The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary to confirm or deny the presence of the analyte.

UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected above the reported value. The reported value may not accurately or precisely represent the sample IDL or MDL.

TPO: [X]FYI [ ]Attention [ ]Action Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 19785 Memo #01 LABORATORY Associated Labs., Inc. (ALI)

SDG NO. MYL266 SITE NAME Newmark-Muscoy

SOW NO. ILM02.1 REVIEW COMPLETION DATE May 20, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Chris Davis

NO. OF SAMPLES 1 WATER ____ SOIL ____ OTHER

	ICP	GFAA	Hg	Cyanide
1. HOLDING TIMES	0	0	0	
2. CALIBRATION	0	0	0	
3. BLANKS	0	0	0	
4. ICP INTERFERENCE CHECK SAMPLE (ICS)	0			
5. LABORATORY CONTROL SAMPLE (LCS)	0	0	0	
6. DUPLICATE ANALYSIS	X	0	0	
7. MATRIX SPIKE ANALYSIS	X	M	0	
8. METHOD OF STANDARD ADDITION (MSA)		N/A		
9. ICP SERIAL DILUTION	0			
10. SAMPLE QUANTITATION	0	0	0	
11. SAMPLE VERIFICATION	0	0	0	
12. GFAA ANALYTICAL SPIKE		0		
13. OVERALL ASSESSMENT	X	M	0	

O = No problems or minor problems that affect data quality.
X = No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M = More than about 5% of the data points are qualified as estimates.
Z = More than about 5% of the data points have been rejected.
N/A = Not Applicable.

TPO ACTION:

TPO ATTENTION:

AREAS OF CONCERN:

160 Spear Street, Suite 1380
San Francisco, CA
94105-1535
415/882-3000
Fax 415/882-3199

ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO: Kevin Mayer
Environmental Engineer
South Coast Ground Water Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Margie D. Weiner MDW
Senior Data Review Oversight Chemist
Environmental Services Assistance Team (ESAT)

DATE: June 25, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region IX review of the following analytical data:

SITE:	Newmark-Muscoy
EPA SSI NO.:	J5
CERCLIS I.D. NO.:	CAD981434517
CASE/SAS NO.:	19785 Memo #02
SDG NO.:	MYL225
LABORATORY:	Weyerhaeuser Company (WEYER)
ANALYSIS:	RAS Total Metals
SAMPLE NO.:	19 Water Samples (See Case Summary)
COLLECTION DATE:	April 16 through 28, 1993
REVIEWER:	Mary Hart, ESAT/ICF

If there are any questions, please contact Margie D. Weiner (ESAT/ICF) at (415) 882-3061.

Attachment

cc: Bruce Woods, TPO USEPA Region X
Larry Zinky, URS

TPO: [X]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: [X]Yes [ ]No

Data Validation Report

Case No.: 19785 Memo #02
Site: Newmark-Muscoy
Laboratory: Weyerhaeuser Company (WEYER)
Reviewer: Mary Hart, ESAT/ICF
Date: June 25, 1993

I. Case Summary

SAMPLE INFORMATION: SAMPLE #: MYL225 through MYL238 and MYL242 through MYL246

COLLECTION DATE: April 16 through 28, 1993
SAMPLE RECEIPT DATE: April 21, 23 and 29, 1993

CONCENTRATION & MATRIX: Low Level Ground Waters

FIELD QC: Field Blanks (FB): None
Equipment Blanks (EB): MYL236
Background Samples (BG): None
Duplicates (D1): MYL227 and MYL228
(D2): MYL243 and MYL244

LABORATORY QC: Matrix Spike: MYL232
Duplicates: MYL232
ICP Serial Dilution: MYL232

ANALYSIS: RAS Total Metals

Analyte	Sample Preparation and Digestion Date	Analysis Date
ICP Metals	May 14, 1993	May 25, 1993
GFAA: Arsenic	May 14, 1993	June 1, 1993
Lead	May 14, 1993	May 27 and June 1, 1993
Selenium	May 14, 1993	June 1, 1993
Thallium	May 14, 1993	May 26, 1993
Mercury	May 13, 1993	May 14, 1993

SAMPLING ISSUES:

Iron was detected above the CRDL at a concentration of 172 ug/L in equipment blank MYL236 collected on April 26, 1993. Iron was detected in the associated samples, sample numbers MYL237 and MYL238, at concentrations greater than 10X the concentration found in the equipment blank. Therefore, the associated samples were not affected by the contamination.

ADDITIONAL COMMENTS:

The analytical results with qualifications are listed in Table 1A. The definitions of the data qualifiers used in Table 1A are listed in Table 1B. This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work (ILM02.1), and the EPA Draft Document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

II. Validation Summary

The data were evaluated based on the following parameters:

Parameter	Acceptable	Comment
1. Data Completeness	Yes	
2. Sample Holding Times	Yes	
3. Calibration	Yes	
a. Initial Calibration Verification		
b. Continuing Calibration Verification		
c. Calibration Blank		
4. Blanks	Yes	B
a. Laboratory Preparation Blank		
b. Field Blank		
c. Equipment Blank		
5. ICP Interference Check Sample Analysis	Yes	
6. Laboratory Control Sample Analysis	Yes	
7. Spiked Sample Analysis	Yes	
8. Laboratory Duplicate Sample Analysis	Yes	
9. Field Duplicate Sample Analysis	Yes	
10. GFAA QC Analysis	Yes	
a. Duplicate Injections		
b. Analytical Spikes		
c. Method of Standard Addition		
11. ICP Serial Dilution Analysis	Yes	C
12. Sample Quantitation	Yes	A
13. Sample Result Verification	Yes	

N/A = Not Applicable

III. Validity and Comments

A. The following results are estimated and are flagged "J" in Table 1A.

- All results above the instrument detection limit but below the contract required detection limit (denoted with an "L" qualifier)

Results above the instrument detection limit (IDL) but below the contract required detection limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

B. Iron was detected above the CRDL at a concentration of 172 ug/L in equipment blank MYL236 collected on April 26, 1993. Iron was detected in the associated samples, sample numbers MYL237 and MYL238, at concentrations greater than 10X the concentration found in the equipment blank. Therefore, the associated samples were not affected by the contamination. Iron was detected in sample numbers MYL242 through MYL246, collected April 27 and 28, 1993, at concentrations less than 10X the concentration found in the equipment blank. Since no equipment blanks were collected on April 27 and 28, 1993, it is unknown whether the iron in sample numbers MYL242 through MYL246 is due to field contamination.

C. A percent difference of 10.1% was observed for barium in the ICP serial dilution of sample number MYL232. This percent difference slightly exceeds the 10% method QC limit. This is not expected to affect the quality of the data.

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #02
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 25, 1993

Analysis Type: Low Concentration Water Samples for RAS Total Metals

Concentration in ug/L

Station Location	MUNI-105-01			MUNI-101-01			MUNI-104-01			MUNI-104-02			MUNI-108-01			MUNI-112-01			MUNI-110-01		
Sample I.D.	MYL225			MYL226			MYL227 D1			MYL228 D1			MYL229			MYL230			MYL231		
Date of Collection	04/16/93			04/20/93			04/20/93			04/20/93			04/20/93			04/20/93			04/21/93		
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	36.2 L	J	A	42.4 L	J	A	38.3 L	J	A	27.4 L	J	A	20.6 U			21.2 L	J	A	20.6 U		
Antimony	16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0 U		
Arsenic	1.4 L	J	A	6.0 L	J	A	1.1 U			1.1 U			1.1 U			1.2 L	J	A	1.3 L	J	A
Barium	56.7 L	J	A	43.0 L	J	A	52.4 L	J	A	52.7 L	J	A	38.0 L	J	A	51.0 L	J	A	40.4 L	J	A
Beryllium	0.47 L	J	A	0.30 U			0.47 L	J	A	0.48 L	J	A	0.36 L	J	A	0.35 L	J	A	0.48 L	J	A
Cadmium	3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U		
Calcium	78200			48800			79600			78600			63200			74900			64100		
Chromium	2.8 U			2.8 U			4.5 L	J	A	2.8 U			2.8 U			2.8 U			2.8 L	J	A
Cobalt	3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			3.2 U		
Copper	3.1 L	J	A	28.9			8.0 L	J	A	6.4 L	J	A	2.7 U			3.2 L	J	A	3.2 L	J	A
Iron	1560			77.5 L	J	A	102			93.5 L	J	A	17.7 L	J	A	297			22.6 L	J	A
Lead	0.70 L	J	A	3.0			0.50 U			0.50 U			0.50 U			0.50 U			0.50 U		
Magnesium	16800			9890			17100			17000			13400			15800			13400		
Manganese	26.9			2.1 L	J	A	2.8 L	J	A	2.8 L	J	A	0.80 U			5.9 L	J	A	0.80 U		
Mercury	0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U		
Nickel	19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U		
Potassium	3200 L	J	A	2900 L	J	A	3050 L	J	A	2890 L	J	A	2100 L	J	A	3280 L	J	A	2330 L	J	A
Selenium	1.0 L	J	A	0.95 L	J	A	0.90 U			0.90 U			0.90 U			0.90 U			0.90 U		
Silver	2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U		
Sodium	18000			28400			17800			17800			16800			21900			18200		
Thallium	1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U		
Vanadium	2.7 U			2.7 U			2.7 U			2.7 U			2.7 U			2.7 U			2.7 U		
Zinc	6.2 L	J	A	9.1 L	J	A	11.5 L	J	A	11.8 L	J	A	4.1 L	J	A	11.3 L	J	A	6.2 L	J	A

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #02
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 25, 1993

Analysis Type: Low Concentration Water Samples for RAS Total Metals

Concentration in ug/L

Station Location	MUNI-111-01			MUNI-106-01			MUNI-102-01			MUNI-01-21			WEQ03B-01			WMW06A-21			WMW06B-21		
Sample I.D.	MYL232			MYL233			MYL234			MYL235			MYL236 EB			MYL237			MYL238		
Date of Collection	04/21/93			04/22/93			04/22/93			04/22/93			04/26/93			04/26/93			04/26/93		
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	68.2 L	J	A	124 L	J	A	277			24.8 L	J	A	107 L	J	A	1490			273		
Antimony	16.0 U			16.0 U			16.0 U			17.9 L	J	A	16.0 U			16.0 U			16.0 U		
Arsenic	1.2 L	J	A	1.1 U			1.7 L	J	A	1.1 U			1.1 U			1.1 U			1.1 U		
Barium	46.5 L	J	A	62.9 L	J	A	58.1 L	J	A	37.5 L	J	A	3.5 L	J	A	52.0 L	J	A	32.1 L	J	A
Beryllium	0.48 L	J	A	0.47 L	J	A	0.47 L	J	A	0.46 L	J	A	0.48 L	J	A	0.55 L	J	A	0.30 U		
Cadmium	3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U		
Calcium	65400			87600			83400			74800			126 L	J	A	64800			68800		
Chromium	2.8 U			4.9 L	J	A	4.9 L	J	A	3.0 L	J	A	4.3 L	J	A	14.0			10.4		
Cobalt	3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			4.2 L	J	A	3.2 U		
Copper	3.2 L	J	A	11.2 L	J	A	19.2 L	J	A	12.8 L	J	A	4.8 L	J	A	5.0 L	J	A	4.7 L	J	A
Iron	105			790			863			30.3 L	J	A	172		B	36100		B	2620		B
Lead	0.50 U			2.0 L	J	A	1.7 L	J	A	0.50 U			0.50 U			9.9			1.1 L	J	A
Magnesium	13800			18200			12300			14400			145 L	J	A	15300			15700		
Manganese	2.1 L	J	A	18.5			12.9 L	J	A	1.4 L	J	A	2.8 L	J	A	397			47.2		
Mercury	0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U		
Nickel	19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U		
Potassium	2900 L	J	A	3430 L	J	A	3390 L	J	A	2440 L	J	A	726 U			3030 L	J	A	1950 L	J	A
Selenium	0.90 U			0.90 U			0.90 U			0.90 U			0.90 U			0.90 U			0.90 U		
Silver	2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U		
Sodium	18500			17000			15300			12400			224 L	J	A	22800			14800		
Thallium	1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U		
Vanadium	2.7 U			2.7 U			2.9 L	J	A	3.6 L	J	A	2.7 U			10.5 L	J	A	2.7 U		
Zinc	4.8 L	J	A	21.2			13.4 L	J	A	12.6 L	J	A	12.4 L	J	A	154			42.7		

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #02
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 25, 1993

Analysis Type: Low Concentration Water Samples for RAS Total Metals

Concentration in ug/L

Station Location	WMW01F-21			WMW01E-21			WMW01E-22			WMW01D-21			WMW01A-21			Lab Blank			IDL		
Sample I.D.	MYL242			MYL243 D2			MYL244 D2			MYL245			MYL246								
Date of Collection	04/27/93			04/28/93			04/28/93			04/28/93			04/28/93								
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	20.6 U			65.1 L	J	A	34.1 L	J	A	78.1 L	J	A	26.4 L	J	A	21.3 L	J	A	20.6		
Antimony	16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0		
Arsenic	1.1 U			1.1 U			1.1 U			1.1 U			1.1 U			1.1 U			1.1		
Barium	114 L	J	A	41.6 L	J	A	41.1 L	J	A	34.7 L	J	A	25.7 L	J	A	2.3 L	J	A	0.40		
Beryllium	0.37 L	J	A	0.48 L	J	A	0.48 L	J	A	0.60 L	J	A	0.49 L	J	A	0.48 L	J	A	0.30		
Cadmium	3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 L	J	A	3.7		
Calcium	11700			19500			19900			66400			34400			7.7 U			7.7		
Chromium	2.8 U			3.6 L	J	A	2.8 U			4.5 L	J	A	3.9 L	J	A	2.8 U			2.8		
Cobalt	3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			3.2		
Copper	3.2 L	J	A	3.2 L	J	A	3.2 L	J	A	2.7 U			3.2 L	J	A	3.2 L	J	A	2.7		
Iron	232		B	348		B	315		B	280		B	336		B	14.9 L	J	A	6.1		
Lead	0.50 U			0.50 U			0.50 U			0.50 U			0.50 U			0.50 U			0.50		
Magnesium	14100			16900			17000			20900			16900			30.1 U			30.1		
Manganese	20.2			8.0 L	J	A	8.0 L	J	A	31.0			6.6 L	J	A	0.80 U			0.80		
Mercury	0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10		
Nickel	19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8		
Potassium	5200			5990			6460			4720 L	J	A	4750 L	J	A	726 U			726		
Selenium	0.90 U			0.90 U			0.90 U			0.90 U			0.90 U			0.90 U			0.90		
Silver	2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9		
Sodium	22900			20300			20500			16700			27300			14.1 U			14.1		
Thallium	1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4		
Vanadium	2.7 U			2.7 U			2.7 U			2.7 U			2.7 U			2.7 U			2.7		
Zinc	3.7 L	J	A	6.4 L	J	A	5.0 L	J	A	7.1 L	J	A	4.8 L	J	A	3.8 L	J	A	1.6		

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #02
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Mary Hart, ESAT/ICF Technology, Inc.
Date: June 25, 1993

Analysis Type: Low Concentration Water Samples for RAS Total Metals

Concentration in ug/L

Station Location Sample I.D. Date of Collection	CRDL																				
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	200																				
Antimony	60.0																				
Arsenic	10.0																				
Barium	200																				
Beryllium	5.0																				
Cadmium	5.0																				
Calcium	5000																				
Chromium	10.0																				
Cobalt	50.0																				
Copper	25.0																				
Iron	100																				
Lead	3.0																				
Magnesium	5000																				
Manganese	15.0																				
Mercury	0.20																				
Nickel	40.0																				
Potassium	5000																				
Selenium	5.0																				
Silver	10.0																				
Sodium	5000																				
Thallium	10.0																				
Vanadium	50.0																				
Zinc	20.0																				

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the EPA draft document, "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for but was not detected above the level of the reported value. The reported value is the Instrument Detection Limit (IDL) for waters and the Method Detection Limit (MDL) for soils for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).

L The analyte was analyzed for but results fell between the IDL for waters or the MDL for soils and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.

R The analyte was analyzed for, but the presence <u>or</u> absence of the analyte has not been verified. Resampling and reanalysis are necessary to confirm or deny the presence of the analyte.

UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected above the reported value. The reported value may not accurately or precisely represent the sample IDL or MDL.

TPO: [X]FYI [ ]Attention [ ]Action Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 19785 Memo #02 LABORATORY Weyerhaeuser Company (WEYER)

SDG NO. MYL225 SITE NAME Newmark-Muscoy

SOW NO. 3/90 REVIEW COMPLETION DATE June 25, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Mary Hart

NO. OF SAMPLES 19 WATER ____ SOIL ____ OTHER

	ICP	GFAA	Hg	Cyanide
1. HOLDING TIMES	0	0	0	____
2. CALIBRATION	0	0	0	____
3. BLANKS	0	0	0	____
4. ICP INTERFERENCE CHECK SAMPLE (ICS)	0			
5. LABORATORY CONTROL SAMPLE (LCS)	0	0	0	____
6. DUPLICATE ANALYSIS	0	0	0	____
7. MATRIX SPIKE ANALYSIS	0	0	0	____
8. METHOD OF STANDARD ADDITION (MSA)		N/A		
9. ICP SERIAL DILUTION	0			
10. SAMPLE QUANTITATION	0	0	0	____
11. SAMPLE VERIFICATION	0	0	0	____
12. GFAA ANALYTICAL SPIKE		0		
13. OVERALL ASSESSMENT	X	0	0	____

0 = No problems or minor problems that affect data quality.
X = No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M = More than about 5% of the data points are qualified as estimates.
Z = More than about 5% of the data points have been rejected.
N/A = Not Applicable.

AREAS OF CONCERN: Iron was detected above the CRDL in equipment blank MYL236. No associated samples were affected by the contamination.

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ICF TECHNOLOGY INCORPORATED

URS TDMT Only TDCN: 0306
Project #: 62251 Loc: 09.64 Type: 64

MEMORANDUM

TO: Kevin Mayer
Environmental Engineer
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (P-3-2)

FROM: Margie D. Weiner
Senior Data Review Oversight Chemist
Environmental Services Assistance Team (ESAT)

DATE: July 2, 1993

SUBJECT: Review of Analytical Data

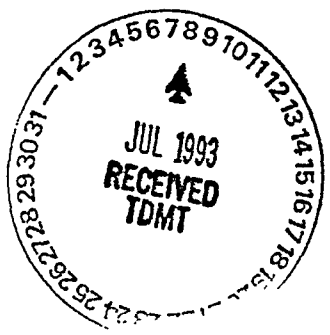
Attached are comments resulting from ESAT Region IX review of the following analytical data:

SITE:	Newmark-Muscoy
EPA SSI NO.:	J5
CERCLIS I.D. NO.:	CAD981434517
CASE/SAS NO.:	19785 Memo #03
SDG NO.:	MYL241
LABORATORY:	Weyerhaeuser Company (WEYER)
ANALYSIS:	RAS Total Metals
SAMPLE NO.:	14 Groundwater Samples (See Case Summary)
COLLECTION DATE:	April 27 through May 7, 1993
REVIEWER:	Dina D. David, ESAT/ICF

If there are any questions, please contact Margie D. Weiner (ESAT/ICF) at (415) 882-3061.

Attachment

cc: Bruce Woods, TPO USEPA Region X
Larry Zinky, URS



TPO: [X]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

Data Validation Report

Case No.: 19785 Memo #03
Site: Newmark-Muscoy
Laboratory: Weyerhaeuser Company (WEYER)
Reviewer: Dina D. David, ESAT/ICF
Date: July 2, 1993

I. Case Summary

SAMPLE INFORMATION: SAMPLE #: MYL239 through MYL241, MYL247 through MYL252, and MYL254 through MYL258

COLLECTION DATE: April 27 through May 7, 1993
SAMPLE RECEIPT DATE: May 5 and 8, 1993

CONCENTRATION & MATRIX: 14 Low Concentration Groundwater Section

FIELD QC: Field Blanks (FB): None
Equipment Blanks (EB): MYL258
Background Samples (BG): None
Duplicates (D1): MYL239 and MYL240

LABORATORY QC: Matrix Spike: MYL254
Duplicates: MYL254
ICP Serial Dilution: MYL254

ANALYSIS: RAS Total Metals

Analyte	Sample Preparation and Digestion Date	Analysis Date
ICP Metals	May 28, 1993	June 2, 1993
GFAA: Arsenic	May 28, 1993	June 8, 1993
Lead	May 28, 1993	June 8, 1993
Selenium	May 28, 1993	June 9, 1993
Thallium	May 28, 1993	June 8, 1993
Mercury	May 19, 1993	May 21, 1993

Areas of Concern:

The values obtained for chromium (10 µg/L) and for zinc (57 µg/L) in the analysis of the ICP Interference Check Sample (ICS) solution A are significantly lower than the true value (Cr = 21 µg/L and Zn = 216 µg/L) specified for each analyte. A separate source of ICP ICS standard should be analyzed to determine if the problem is with the standard.

ADDITIONAL COMMENTS:

The analytical results with qualifications are listed in Table 1A. The definitions of the data qualifiers used in Table 1A are listed in Table 1B. This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work (ILM02.1), and the EPA Draft Document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

II. Validation Summary

The data were evaluated based on the following parameters:

Parameter	Acceptable	Comment
1. Data Completeness	Yes	
2. Sample Holding Times	Yes	
3. Calibration	Yes	
a. Initial Calibration Verification		
b. Continuing Calibration Verification		
c. Calibration Blank		
4. Blanks	Yes	
a. Laboratory Preparation Blank		
b. Field Blank		
c. Equipment Blank		
5. ICP Interference Check Sample Analysis	Yes	
6. Laboratory Control Sample Analysis	Yes	
7. Spiked Sample Analysis	Yes	
8. Laboratory Duplicate Sample Analysis	Yes	
9. Field Duplicate Sample Analysis	No	C
10. GFAA QC Analysis	No	B
a. Duplicate Injections		
b. Analytical Spikes		
c. Method of Standard Addition		
11. ICP Serial Dilution Analysis	Yes	
12. Sample Quantitation	Yes	A
13. Sample Result Verification	Yes	

III. Validity and Comments

A. The following results are estimated and are flagged "J" in Table 1A.

- All results above the instrument detection limit but below the contract required detection limit (denoted with an "L" qualifier)

Results above the instrument detection limit (IDL) but below the contract required detection limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

B. The following results are estimated because of GFAA analytical spike recovery results outside method QC limits. The results are flagged "J" in Table 1A.

- Selenium in samples MYL240, MYL241, MYL248, MYL249, MYL254, MYL255, MYL256, and MYL257

Selenium was analyzed by the graphite furnace atomic absorption (GFAA) technique, which requires that a post-digestion analytical spike be performed for each sample to establish the accuracy of the individual analytical determination. The analytical spike recovery results for selenium in the samples listed above did not meet the 85-115% criteria for accuracy. The percent recovery and possible percent bias for selenium is presented below and is based on an ideal recovery of 100%.

Analyte	Sample Number	% Recovery	% Bias
Selenium	MYL240	74.5	-25.5
	MYL241	72.0	-28.0
	MYL248	81.0	-19.0
	MYL249	82.0	-18.0
	MYL254	78.0	-22.0
	MYL254 (Dup.)	83.0	-17.0
	MYL255	84.0	-16.0
	MYL256	82.0	-18.0
	MYL257	82.5	-17.5

The post-digestion spike recovery results for selenium in the samples listed above show an analytical deficiency. Results above the IDL are considered quantitatively uncertain. The results reported for selenium in the samples listed above may be biased low, and where non-detected, false negatives may exist.

C. Relative percent differences (RPDs) of 137 for aluminum, 126 for calcium, 37.4 for magnesium, and 132 for zinc were obtained in the analysis of field duplicate pair samples MYL239 and MYL240. The analysis of field duplicate samples is a measure of both field and analytical precision. The results are expected to vary more than laboratory duplicates ($\pm$20 RPD or $\pm$CRDL criteria for precision) since sampling variability is included in the measurement. The imprecision in the results of the analysis of the field duplicate pair may be due to the sample matrix, high levels of solids in the sample, poor sampling or laboratory technique, or method defects. The effect on the quality of the data is not known.

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #03
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Dina D. David, ESAT/ICF Technology, Inc.
Date: July 2, 1993

Analysis Type: Low Concentration Groundwater Samples for RAS Total Metals

Concentration in ug/L

Station Location	WMW08B-21			WMW08B-22			WMW08A-21			WMW01J-21			WMW01B-21			MUNI-103-01			WMW01C-21		
Sample I.D.	MYL239 D1			MYL240 D1			MYL241			MYL247			MYL248			MYL249			MYL250		
Date of Collection	05/07/93			05/07/93			04/27/93			04/29/93			05/03/93			05/04/93			05/04/93		
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	462		C	2460		C	55.7 L	J	A	20.6 U			29.6 L	J	A	158 L	J	A	82.9 L	J	A
Antimony	16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0 U			16.0 U		
Arsenic	0.60 U			0.60 U			0.60 U			0.60 U			0.60 U			0.70 L	J	A	1.2 L	J	A
Barium	12.5 L	J	A	46.3 L	J	A	28.8 L	J	A	180 L	J	A	21.0 L	J	A	48.2 L	J	A	127 L	J	A
Beryllium	0.30 U			0.30 U			0.30 U			0.30 U			0.30 U			0.30 U			0.30 U		
Cadmium	3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U		
Calcium	10500		C	46200		C	64800			99600			48800			74200			64000		
Chromium	5.7 L	J	A	11.6			5.7 L	J	A	17.0			2.8 U			2.8 U			11.3		
Cobalt	4.7 L	J	A	5.7 L	J	A	4.0 L	J	A	3.8 L	J	A	3.2 U			3.2 U			3.5 L	J	A
Copper	5.3 L	J	A	6.9 L	J	A	2.7 U			2.7 U			2.7 U			3.2 L	J	A	2.7 U		
Iron	28800			29800			721			45900			291			331			6380		
Lead	2.0 L	J	A	3.0			1.2 L	J	A	0.50 U			0.50 U			2.5 L	J	A	0.50 U		
Magnesium	11100		C	16200		C	12000			16700			16800			13200			19300		
Manganese	288			306			16.7			632			12.6 L	J	A	9.9 L	J	A	399		
Mercury	0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U		
Nickel	19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U			19.8 U		
Potassium	4570 L	J	A	5250			2120 L	J	A	6230			5300			3090 L	J	A	5760		
Selenium	1.1 U			1.2 L	J	AB	1.7 L	J	AB	1.1 U			1.2 L	J	AB	1.1 U	J	B	1.1 U		
Silver	2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U		
Sodium	22700			20500			13800			44700			28800			16300			26900		
Thallium	1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U		
Vanadium	2.7 U			6.2 L	J	A	2.7 U			2.7 U			2.7 U			2.7 U			2.7 U		
Zinc	252		C	1230		C	8.5 L	J	A	22.7			4.6 L	J	A	487			4.0 L	J	A

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No.: 19785 Memo #03
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Dina D. David, ESAT/ICF Technology, Inc.
Date: July 2, 1993

Analysis Type: Low Concentration Groundwater Samples for RAS Total Metals

Concentration in ug/L

Station Location	WMW01G-21			WMW01H-21			WMW11-21			WMW12-21			MUNI-107-01			MUNI-109-01			WEQ109-01		
Sample I.D.	MYL251			MYL252			MYL254			MYL255			MYL256			MYL257			MYL258 EB		
Date of Collection	05/05/93			05/04/93			05/05/93			05/05/93			05/05/93			05/06/93			05/06/93		
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	42.1 L	J	A	47.2 L	J	A	148 L	J	A	20.6 U			186 L	J	A	1350			20.6 U		
Antimony	25.8 L	J	A	16.0 U			18.3 L	J	A	16.0 U			16.0 U			16.0 U			16.0 U		
Arsenic	0.60 U			0.60 U			2.7 L	J	A	0.60 U			0.60 U			0.85 L	J	A	0.60 U		
Barium	79.3 L	J	A	53.0 L	J	A	50.7 L	J	A	46.5 L	J	A	63.4 L	J	A	88.9 L	J	A	0.40 U		
Beryllium	0.30 U			0.30 U			0.30 U			0.30 U			0.30 U			0.30 U			0.30 U		
Cadmium	3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U			3.7 U		
Calcium	52900			23700			88600			76900			86500			86100			74.6 L	J	A
Chromium	150			35.4			3.5 L	J	A	2.8 U			2.8 U			19.3			2.8 U		
Cobalt	5.5 L	J	A	3.2 U			3.2 U			3.2 U			3.2 U			3.2 U			3.2 U		
Copper	2.9 L	J	A	2.7 U			2.7 U			2.7 U			5.6 L	J	A	11.0 L	J	A	2.7 U		
Iron	28300			859			361			126			548			9780			11.5 L	J	A
Lead	7.6			0.90 L	J	A	1.1 L	J	A	0.50 U			8.8			21.3			0.80 L	J	A
Magnesium	12100			14200			16800			14500			17400			14800			30.1 U		
Manganese	224			17.4			11.3 L	J	A	5.1 L	J	A	16.0			73.4			0.80 U		
Mercury	0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U			0.10 U		
Nickel	89.2			19.8 U			19.8 U			19.8 U			22.6 L	J	A	19.8 U			19.8 U		
Potassium	4570 L	J	A	5450			3460 L	J	A	2640 L	J	A	3520 L	J	A	4330 L	J	A	726 U		
Selenium	1.1 U			1.1 U			1.1 U	J	B	1.1 U	J	B	1.1 U	J	B	1.1 U	J	B	1.1 U		
Silver	2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U			2.9 U		
Sodium	90900			29100			14100			12300			15700			48400			245 L	J	A
Thallium	1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U			1.4 U		
Vanadium	3.0 L	J	A	2.7 U			4.0 L	J	A	3.5 L	J	A	2.7 U			9.4 L	J	A	2.7 U		
Zinc	56.1			8.1 L	J	A	5.6 L	J	A	3.8 L	J	A	756			1690			12.2 L	J	A

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

Case No.: 19785 Memo #03
Site: Newmark-Muscoy
Lab.: Weyerhaeuser Company (WEYER)
Reviewer: Dina D. David, ESAT/ICF Technology, Inc.
Date: July 2, 1993

Analysis Type: Low Concentration Groundwater Samples for RAS Total Metals

Concentration in ug/L

Sample I.D.	Lab Blank			IDL			CRDL														
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	141 L	J	A	20.6			200														
Antimony	16.0 U			16.0			60.0														
Arsenic	0.60 U			0.60			10.0														
Barium	0.40 U			0.40			200														
Beryllium	0.30 U			0.30			5.0														
Cadmium	3.7 U			3.7			5.0														
Calcium	140 L	J	A	7.7			5000														
Chromium	2.8 U			2.8			10.0														
Cobalt	3.2 U			3.2			50.0														
Copper	2.7 U			2.7			25.0														
Iron	58.3 L	J	A	6.1			100														
Lead	0.50 U			0.50			3.0														
Magnesium	128 L	J	A	30.1			5000														
Manganese	0.80 U			0.80			15.0														
Mercury	0.10 U			0.10			0.20														
Nickel	19.8 U			19.8			40.0														
Potassium	726 U			726			5000														
Selenium	1.1 L	J	A	1.1			5.0														
Silver	2.9 U			2.9			10.0														
Sodium	14.1 U			14.1			5000														
Thallium	1.4 U			1.4			10.0														
Vanadium	2.7 U			2.7			50.0														
Zinc	2.1 L	J	A	1.6			20.0														

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the EPA draft document, "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses," October, 1989.

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U The analyte was analyzed for but was not detected above the level of the reported value. The reported value is the Instrument Detection Limit (IDL) for waters and the Method Detection Limit (MDL) for soils for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).

L The analyte was analyzed for but results fell between the IDL for waters or the MDL for soils and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.

R The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary to confirm or deny the presence of the analyte.

UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected above the reported value. The reported value may not accurately or precisely represent the sample IDL or MDL.

TPO: [X]FYI [ ]Attention [ ]Action Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 19785 Memo #03 LABORATORY Weyerhaeuser Company (WEYER)

SDG NO. MYL241 SITE NAME Newmark-Muscoy

SOW NO. ILM02.0 REVIEW COMPLETION DATE July 2, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Dina D. David

NO. OF SAMPLES 14 WATER ____ SOIL ____ OTHER

	ICP	GFAA	Hg	Cyanide
1. HOLDING TIMES	0	0	0	____
2. CALIBRATION	0	0	0	____
3. BLANKS	0	0	0	____
4. ICP INTERFERENCE CHECK SAMPLE (ICS)	0			
5. LABORATORY CONTROL SAMPLE (LCS)	0	0	N/A	____
6. DUPLICATE ANALYSIS	0	0	0	____
7. MATRIX SPIKE ANALYSIS	0	0	0	____
8. METHOD OF STANDARD ADDITION (MSA)		N/A		
9. ICP SERIAL DILUTION	0			
10. SAMPLE QUANTITATION	0	0	0	____
11. SAMPLE VERIFICATION	0	0	0	____
12. GFAA ANALYTICAL SPIKE		M		
13. OVERALL ASSESSMENT	0	M	0	____

0 = No problems or minor problems that affect data quality.
X = No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
M = More than about 5% of the data points are qualified as estimates.
Z = More than about 5% of the data points have been rejected.
N/A = Not Applicable.

AREAS OF CONCERN: The values obtained for chromium (10 µg/L) and for zinc (57 µg/L) in the analysis of the ICP Interference Check Sample (ICS) solution A are significantly lower than the true value (Cr = 21 µg/L and Zn = 216 µg/L) specified for each analyte. A separate source of ICP ICS standard should be analyzed to determine if the problem is with the standard.

In Reference to Case No(s).:

19785 Memo #03

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: June 29, 1993

Laboratory Name: Weyerhaeuser Company (WEYER)

Lab Contact: Mary Beth Lanza (206)924-6179

Region: IX

Regional Contact: Dina D. David, ESAT/ICF Technology

Call Initiated By: _____ Laboratory __X__ Region

In reference to data for the following sample number(s):
Sample MYL247 in SDG No. MYL241.

Summary of Questions/Issues Discussed:

1. See attached sheet.

Summary of Resolution:

1. See attached sheet.

Dina David
Signature

June 29, 1993
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s):

19785 SDG=MYL214

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: June 29, 1993

Laboratory Name: Weyerhaeuser
Lab Contact: Mary Beth Lanza

Region: ICF Kaiser
Regional Contact: Dina David (415) 882-3057

Call Initiated By: Region

In reference to data for the following sample number(s):

MYL247

Summary of Questions/Issues Discussed: The average result for As on page 142 for MYL247 is 0.4 ug/L. Form 1 should be 0.6U ug/L rather than 0.9B and on Form 14 the % recovery should be 99.0% rather than 94.5%.

Summary of Resolution:

Fax a new copy of Form 1 for MYL247, page 000005 and a new Form 14, page 000043 to (415) 882-3199.

Mary Beth Lanza
Signature

06-29-93
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy